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CIA-RDP86-00513R000102110009-7

5472007-432
ACCESSION NR: AT5009563

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Card: 2/2

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000102110009-7"

L 43854-55

EPR(s)/FWT(m)/EPP(c)/EPR(t)/BWP(t)/FWP(t)/EWL(c) Pr-L1/P2-1

REVIEWED: [Signature] DATE: 10/20/98 BY: [Signature]
REASON: [Signature] PREPARATION: [Signature]

SUBJECT: Viskaka metallo-organic compounds (IUPAC 502-504)

TOPIC TAGS: reaction-diffusion binary system (IUPAC 502-504)

[Card 1/2]

I 43854-65

ACCESSION NR: AP4048774

2

NR REF SOV: 000

OTHER: 010

L 58887-65 EVA(b)/EVT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) Peb IJP(c) MJW/
JD/JG

ACCESSION NR: AP5018995

UR/0286/65/000/012/0020/0020

650, 14F, 52f

1/6
B

AUTHOR: Arkharov, V. I.; Kralina, A. A.; Sklyuyev, P. V.; Pavter, L. I.

TITLE: A method for reducing steel flocculation.* Class 18, No. 171871, 5

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 20

TOPIC TAGS: flocculation, steel

ABSTRACT: This Author's Certificate introduces a method for reducing steel flocculation.* 0.3-0.5% palladium is introduced to the melt to promote hydrogen discharge by diffusion from the solid phase.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals AN SSSR)

SUBMITTED: 09Apr64

ENCL: 00

SUB CODE: HM

NO REF SOV: 000

OTHER: 000

Card 1/1 Flocculation method for reducing steel flaking 4

L 4914-66 EWT(m)/EPF(c)/EMP(t)/EWP(b) LJP(c) JD/WB

ACCESSION NR: AP5025322

UR/0126/65/020/003/0384/0389
669.094.3

AUTHOR: Arkharov, V.I.; Agapova, Ye. V.

TITLE: Structural characteristics of hematite from iron scale in relation with conditions of scale formation

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 3, 1965, 384-389

TOPIC TAGS: crystal structure, iron compound, high temperature oxidation,
x ray diffraction 27

ABSTRACT: It was found previously (Arkharov V.I., Okislenie metallov, Sverdlovsk-Moskva, Metalurgizdat, 1945; and Arkharov et al., Issledovania po zharoprochnym splavam, t.2, M., Izd. AN SSR, 1957, str. 98) that hematite produced in air at high temperatures (800-1000°C) by the oxidation of iron, had some peculiar structural properties: (1) a very intensive reflection from plane (111), which was absent in the X-ray diffraction pattern of common $\alpha\text{-Fe}_2\text{O}_3$ or in that of hematite produced by the oxidation of iron at lower temperatures (600-800°C); (2) a determination of lattice parameters from lines (554) and (532) revealed in the high-temperature hematite the displacement of line (554) to the side of

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090-0256

L 4914-66

ACCESSION NR: AP5025322

larger angles. To determine the conditions of formation of the anomalous hematite, an X-ray diffraction study was made of the hematites formed under various conditions: (I) by high-temperature oxidation in room atmosphere of iron samples preliminarily oxidized in H₂O vapors at 1000C to the various stages of oxidation [(1) the metallic iron in the core and the scale consisting of an internal wustite layer and an external magnetite layer, i.e. Fe-FeO-Fe₃O₄; (2) the metal fully oxidized and the samples consisting of a wustite core and an external magnetite layer, i.e. FeO-Fe₃O₄; and (3) the entire sample oxidized into magnetite, i.e. Fe₃O₄], and (II) by oxidation of iron in room atmosphere at 1000 and 700C. An interpretation of X-ray diffraction patterns suggested that the structural anomaly of hematite from high-temperature scale was affected by the specific conditions of reaction diffusion. The appearance of the anomalous hematite was related to the presence in the sample of a source of the Fe ion diffusion either in the form of a wustite core or as the iron-wustite core. The anomalous hematite did not develop in fully oxidized samples or in the hematite ChDA annealed at 400C to constant weight. This indicated that anomalous hematite grew by the diffusion of Fe ions. The structural differences of hematites in iron scale, formed under various conditions, were attributed to the different mechanisms of growth of the hematite layer: predominant delivery

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L 4914-66

ACCESSION NR: AP5025322

of either iron ions (anomalous hematite) or oxygen ions (conventional hematite).
Orig. art. has: 1 table.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of the Physics of
Metals, AN SSSR)

SUBMITTED: 28 Oct 64 / --Sep 65

ENCL: 00

SUB CODE: SS, IC

NO REF Sov: 010

OTHER: 005

(JC
Card 3/3

ARKHAROV, V.I.; BLANKOVA, Ye.B.; KONEV, V.N.; KRUSHATINA, N.A.

Formation mechanism of two-layer, single-phase scale in the
sulfidizing of metals. Fiz.met. i metalloved. 18 no.5:730
(MIRA 18:4)
N '64.

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo.

ARKHAROV, V. I., & AGAPOVA, YE. V.

Structural characteristics of the benatite in iron oxide in
connection with conditions of its formation. Size, 1971. 1
metallized. 20 Dec. 1976. L. G. S.
(MIMI 1800)

1. Institut fiziki zemlevozreniya SSSR.

ARKHAROV, V.I.; KONEV, V.N.; KRUSHATINA, N.A.

Investigating the mechanism of reactive diffusion in systems
binary alloy - gas. Part 2: Sulfidizing of copper-zinc alloys.
Fiz. met. i metalloved. 20 no.4:535-539 O '65.
(MIRA 18:11)
1. Ural'skiy gosudarstvennyy universitet imeni A.M.Gor'kogo.

ERKHAROV, V.I.; KONOV, V.N.; KRUSHATINA, N.A.

Investigating the sulfidizing of copper-zinc alloys by the
wedge tablet method. Zashch.n. met. i no.61680-686 N-D '65.
(MIRA 18:11)
I. Ural'skiy gosudarstvennyy universitet imeni A.M.Gor'kogo.

L 18870-66 EWT(m)/T/EWP(t)
ACC NR: AP6007103

IJP(c) JD/HW/WB

SOURCE CODE: UR/0129/66/000/002/0011/0013

AUTHOR: Arkharov, V. I.; Borisov, B. S.; Tagirova, D. M.ORG: Institute of Metal Physics, AN SSSR (Institut fiziki metallov AN SSSR)TITLE: Controlling the mechanical properties of nickel alloys by internal oxidation
SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1966, 11-13, and
inserts facing p. 48 and p. 49TOPIC TAGS: nickel, nickel alloy, alloy strengthening, dispersion strengthening,
internal oxidation, alloy property

ABSTRACT: The effect of finely dispersed nonmetallic inclusions on the mechanical properties of nickel has been investigated. These inclusions are formed by the diffusion of oxygen (or other gases) into solid nickel, where the oxygen reacts with elements such as magnesium and silicon, which have a higher affinity to oxygen than nickel. The investigation of oxidized commercial-grade nickel and nickel alloys which contained about 0.5% magnesium, silicon, aluminum, or chromium showed that finely dispersed inclusions concentrate at the grain and mosaic block boundaries and increase the strength of nickel alloys. Such a dispersion strengthening is more advantageous than that produced by aging because of the stability of dispersed inclusions. However, the internal oxidation under certain conditions can sharply lower the mechanical properties, owing to an accumulation of inclusions at grain boundaries

UDC: 620.17:542.943.24

Card 1/2

L 18870-66

ACC NR: AP6007103

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which brings about embrittlement. This embrittlement can be avoided either by an oxidation of nickel or nickel alloy powder, which is then compacted and sintered, or by oxidation of a solid metal with simultaneous application of plastic deformation or ultrasound. Sintered compacts made of oxidized powder of nickel alloy with 1% aluminum had a tensile strength of 40.5 kg/mm^2 with a yield strength approaching the same value. Plastic deformation during internal oxidation promoted uniform distribution of the inclusions, not only at grain boundaries, but also within the grains. Application of ultrasound at a frequency of 20 kc had a negative effect; it increased sharply the internal oxidation zone and the precipitation of inclusions on grain boundaries. However, it is possible that at some other frequencies, ultrasound would promote an accumulation of inclusions at imperfections, such as the mosaic block boundaries and individual dislocations, and improve the properties of alloy.

/6

[WW]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 007/ ATD PRESS: 4217

Dispersion Hardened |^o

Card

2/2

L 06192-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6032528 SOURCE CODE: UR/0413/66/000/017/0128/0128

INVENTOR: Arkharov, V. I.; Borisov, B. S.; Moiseyev, A. I.; Ugol'nikova, T. A.

39
B

ORG: none

TITLE: Method of deposition of intermetallic niobium-tin compound Nb₃Sn coating.
Class 48, No. 185661. [announced by the Institute of Physics of Metals, AN SSSR
(Institut fiziki metallov AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 128

TOPIC TAGS: niobium tin intermetallic compound, niobium tin compound coating,
niobium tin compound deposition, METAL DEPOSITION, METAL COATING,
NIOBIUM COMPOUND, TIN COMPOUND

ABSTRACT: This Author Certificate introduces a method of deposition of niobium-tin
compound coatings. To increase the purity and uniformity of the coating, niobium
pentachloride is placed in the reaction chamber and heated to 120-160°C, and the
gaseous mixture of tin tetrachloride and hydrogen at about 0°C is fed directly on the
preheated port of the substrate.

SUB CODE: 11, 13/ SUBM DATE: 11Apr64/

Card 1/1 afs

UDC: 669.65' 293:621.793

ACC NR: AP6034569

(N)

SOURCE CODE: UR/0020/66/170/006/1303/1305

AUTHOR: Arkharov, V. I. (Academician AN UkrSSR); Borisov, B. S.; Moiseyev, A. I.; Ugol'nikova, T. A.ORG: Institute of Physics of Metals, Academy of Sciences SSSR (Institut fiziki metallov Akademii nauk SSSR)TITLE: Vacuum vapor deposition of an Nb₃Sn layer on a wire

SOURCE: AN SSSR. Doklady, v. 170, no. 6, 1966, 1303-1305

TOPIC TAGS: niobium ~~tin~~ compound, superconductor compound, niobium ~~compound~~ metal deposition, vacuum vapor deposition, ~~vacuum vapor deposition unit~~

ABSTRACT: To reduce the clogging of the reaction chamber by nonvolatile niobium trichloride, a new method and equipment (see Fig. 1) for continuous deposition of a superconducting layer of Nb₃Sn on a moving wire has been developed. Wire 1 is continuously fed through seals 2 into a reaction chamber at a fixed speed. Portion 3 of the wire is under treatment and is heated to about 1000°C by electric current fed through sliding contacts 4. The bottom part 6 of reaction chamber 5 contains solid niobium pentachloride 7. The chamber is maintained at a temperature of 120–180° by electric furnace 8 controlled by thermocouple 9. Vapors of niobium pentachloride proceed directly to the wire. Hydrogen passing through reservoir 10, located in thermostat 11 and kept at 0°C, is saturated with vapors of tin tetrachloride 12 and then

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UDC: 669.65.293:621.793

ACC NR. AP6034569

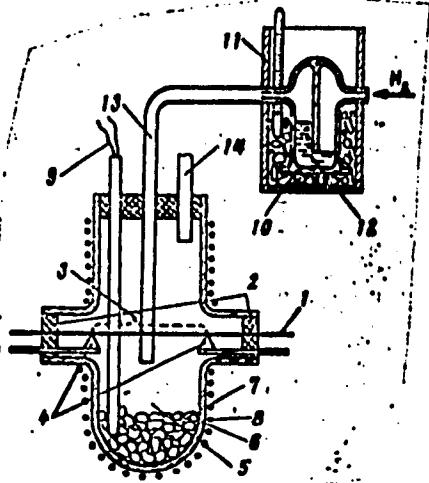


Fig. 1. Unit for vacuum vapor deposition of Nb_3Sn on wire.

passed through pipe 13 to the reaction chamber, where it comes in contact with the wire and forms a layer of Nb_3Sn on its surface. Waste gases are removed through pipe 14. With this arrangement, the zone in which niobium trichloride can be formed is very small and a clogging of the reaction chamber was not observed. The unit was

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ACC NR: AP6034569

tested on platinum and nichrome wire 0.3 mm in diameter. The temperature of deposition was varied between 800-1200C. A single-phase layer (1-4 μ thick) of Nb₃Sn with B-W structure was obtained. It was established that the thickness of the layer increases with a temperature rise. Orig. art. has: 1 figure.

SUB CODE: 11, 13 ~~24~~ SUBM DATE: 11May66/ ORIG REF: 003/ OTH REF: 013/
ATD PRESS: 5103

Card 3/3

ACC NR: AP6036112

SOURCE CODE: UR/0365/66/002/006/0678/0685

AUTHOR: Arkharov, V. I.; Katanov, L. M.

ORG: Ural State University im. Gor'kiy (Ural'skiy gosudarstvennyy universitet)

TITLE: Effect of scale formation conditions on the morphology of chromium nitrides

SOURCE: Zashchita metallov, v. 2, no. 6, 1966, 678-685

TOPIC TAGS: metal scaling, chromium compound, nitride

ABSTRACT: The article reports a study of the diffusional growth of chromium nitrides and the effect of the conditions of this growth on the morphology and composition of the scale. The experiments were carried out in an ammonia atmosphere at temperatures from 700-1200°. The chromium samples were in the form of hollow cylinders with a length of 30 mm and a wall thickness of 0.3-0.5 mm. Chromium was deposited electrolytically on copper tubes, which were then dissolved in nitric acid. Before being put into the furnace, the samples were washed with acetone. Diffusion annealing was carried out in a quartz tube placed in a vertical electric furnace. Technical grade ammonia from a cylinder was used for the atmosphere. In some of the experiments, the partial pressure of nitrogen in the working space was reduced by the addition of hydrogen. The samples were annealed at 700, 800, 900, 1000, 1100, and 1200°. The annealing time varied from 12 to 5 hours depending on the temperature. Based on the

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UDC: 620.193.5:620.198

ACC NR: AP6036112

experimental data, a series of curves illustrates the dependence of the increase in weight of the samples on the annealing time at different temperatures, and in different atmospheres. An extensive table shows the experimental data on the nitriding of chromium in an ammonia atmosphere. The data includes the temperature, the atmosphere, the nitriding time, the phase composition of the scale formed (by x ray analysis), and the increase in weight. It is seen that at 1000, 1100, and 1200°, the increase in weight is particularly significant in an atmosphere of undissociated ammonia. In general it was observed that the process of scale formation takes place according to a parabolic law; this reflects the diffusional nature of the process, and is evidence that the scale grows monolithically and that it does not contain mechanical defects. Orig. art. has: 5 formulas, 4 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: 17Jan66/ ORIG REF: 008/ OTH REF: 008

Card 2/2

ACC NR: AP7002738

(N)

SOURCE CODE: UR/0126/66/022/006/0884/0889

AUTHOR: Arkharov, V. I.; Ivanovskaya, S. I.; Krivonosova, A. S.

ORG: Institute of Metal Physics, AN SSSR (Institut fiziki metallov AN SSSR)

TITLE: Mechanism of the high-temperature oxidation of nickel

SOURCE: Fizika, metallov i metallovedeniye, v. 22, no. 6, 1966, 884-889

TOPIC TAGS: high temperature oxidation, nickel, metal scaling, metal grain structure, metal diffusion

ABSTRACT: As revealed by previous investigations (V. I. Arkharov, Z. A. Voroshilova, ZhTF, 1936, 6, 781; V. I. Arkharov, G. D. Lomakin, ZhTF, 1944, 14, 155), the scale forming in the process of the high-temperature oxidation of Ni contains a single phase (NiO) and consists of two morphologically different layers (Fig. 1): an inner layer formed by tiny randomly oriented (nontextured) crystals, and an outer textured macrocrystalline layer whose texture is characterized by the positioning of the (001) planes of NiO at an angle of ~10° to the outer surface of the scale and is the more distinct and macrocrystalline the higher the temperature is. Two different interpretations of these findings are possible: 1) the macrocrystalli-

UDC: 669.24:620.191

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ACC NR: AP7002738

nity and texturedness of the outer layer are due to the recrystallization of the NiO forming at the metal-scale interface; 2) the principal role is played by the diffusion of Ni across the scale toward the outer layer of the scale. To clarify this question a series of specimens having the form of thin plates (0.2-0.5 mm thick) was completely oxidized until all the metal become transformed into scale and subsequently heated at the same temperature (1200°C) for an additional 30-40 hr, while another series of more massive (3-5 mm thick) specimens was oxidized so as to obtain a layer of scale ~0.2 mm thick on each. This layer was mechanically separated from the specimens and, as in the first part of the experiment, heated at 1200°C for an additional period of time. During the third series of experiments 0.1-0.3 mm thick layers of scale, separated from massive specimens of the metal were placed face downward on Ni metal (i.e. their outer layer now became the inner layer) and annealed in air. Microstructural and radiographic examinations were carried out during each stage of the experiments. Findings: on elimination of contact between Ni scale and Ni metal further heating of the scale led to no microstructural changes. On the other hand, when the scale remains in contact with the metal, microstructural changes in the scale continue in the course of further heating, with the microcrystals growing in size and the oxidation of the Ni metal continuing, i.e. the directional diffusion of Ni across the scale toward the outer layer takes place and plays the principal role as also demonstrated by the fact that in specimens with "inverted" scale the microcrystals grow into textured macrocrystals and the process of oxidation of the nickel coated

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Fig. 1. Microstructure of NiO scale (sectional view, magnification 120 times):
1 - outer layer; 2 - inner layer; 3 - metal

with the inverted scale continues, i.e. a diffusion flux across the scale occurs. The reason for the microcrystallinity and nontexturedness of the inner layer of the scale (at the scale-metal interface) is that at this interface the volume of the newly forming oxide virtually corresponds to the space freed in the reaction zone owing to the departure of the metal diffusing across the scale toward the outer layer of the scale. This correspondence is absent in the outer layer of the scale and it is this that accounts for the strain hardening and enlargement in volume of the newly forming crystals in this layer. Orig. art. has: 4 figures.

SUB CODE: /13, 20/ SUBM DATE: 22Nov65/ ORIG REF: 003/ OTH REF: 004

Card 3/3

ALKHAZASHVILI, G.M.; NEVSKIY, B.V.; ARKHAROVA, I.I.

Use of minerals of enclosing rocks in studying uranium sorption. Atom,
energ. 16 no.1;51-55 Ja '64.
(MIRA 17;2)

RYABCHIKOV, Ye.F.; STAKHURSKIY, A.Ye., red.; ARKHAROVA, L.Ya., otv.red.;
SOKOLOVA, Ye.V., tekhn.red.

[Outline railroad model] Konturnaya model' zheleznoi dorogi.
Moskva, Izd-vo "Detskiy mir," 1961. 1 fold. (Prilozhenie k zhurna-
lu "IUnyi tekhnik," no.4(94)).
(MIRA 14;1)

1. Tsentral'naya stantsiya yunykh tekhnikov, Moscow; 2a. Zavedeni-
yushchiy laboratoriya Tsentral'noy stantsii yunykh tekhnikov
(for Ryabchikov).

(Railroads--Models)

BESKURNIKOV, A.A.; STAKHURSKIY, A.Ye., red.; ARKHAROVA, L.Ya., otv. red.;
BLANKSHTEYN, S.S., tekhn. red.

[Laboratory for the processing of motion-picture films] Kino. Laboratoriia na stole. Moskva, Izd-vo "Detskiy mir." (Prilozhenie k zhurnalu "IUnyi tekhnik," no.18(108)) No.1. 1961. 1 gold. 1.
(MIRA 14:8)

1. TSentral'naya stantsiya yunykh tekhnikov, Moscow.
(Amateur motion pictures—Equipment and supplies)

BESKURNIKOV, A.A.; STAKHURSKIY, A.V., red.; ARKHAROVA, L.Ya., otv. red.;
PRONINA, T.L., tekhn. red.

[Table laboratory for motion picture processing] Kinolaboratoriia na
stole. Moskva, Izd-vo "Detskiy mir," (Prilozhenie k zhurnalu "IUnyi
tekhnik," no.19(109)) No.2. 1961. 1 fold.1. (MIRA 14:9)

1. Tsentral'naya stantsiya yunykh tekhnikov, Moscow.
(Amateur motion pictures—Equipment and supplies)

ALEKSANDROV, B.; ARKHAROVA, L.Ya., otv. red.; PRONINA, T.L., tekhn.
red.

[For young poultry breeders] IUnym ptitsevodam. Moskva, Izd-vo
"Detskii mir," 1961, 1 fold.l. (Prilozhenie k zhurnalu "IUnyi
tekhnik," no.20(110))
(MIRA 14:9)

1. TSentral'naya stantsiya yunykh tekhnikov, Moscow.
(Poultry houses and equipment)

ARKHAROVA, L.Ya., otv. red.; SHCHEPTEVA, T.N., tekhn. red.

[Advice for the young technician] Sovety iunoru tekhniku. Moscow,
Izd-vo "Detskii mir," 1961. 1 fold.l. (Prilozhenie k zhurnalju
"IUnyi tekhnik," no.23(113)) (MIRA 14:11)

1. TSentral'naya stantsiya yunykh tekhnikov, Moscow.
(Technology)

IVANOV, B.S.; ARKHAROVA, L.Ya., otv.red.; SOKOLOVA, Ye.V., tekhn.red.

[Heterodyne resonance indicator] Geterodinnyi indikator
rezonansu. Moskva, Izd-vo "Detskiy mir," 1962. 1 fold. 1.
(Prilozhenie k zhurnalu "IUnyi tekhnik," no.6(120)).

(MIRA 15:2)

1. TSentral'naya stantsiya yunykh tekhnikov, Moscow.
(Radio measurements)

RYABCHIKOV, Ye.F.; STAKHURSKIY, A.Ye., red.; ARKHAROVA, L.Ya., otyv.
red.; SHCHEPTEVA, T.N., tekhn. red.

[Self-propelled model of a motor grader] Samokhodnaia model'
avtogleidera. Moskva, Izd-vo "Detskii mir," 1962. 1 fold. 1.
(Prilozhenie k zhurnalu "IUrnyi tekhnik," no.2(116))

(MIRA 15:1)

1. TSentral'naya stantsiya yunykh tekhnikov, Moscow. 2. Zavedyushchiy laboratoriyyey TSentral'noy stantsii yunykh tekhnikov,
Moskva (for Ryabchikov).

(Graders (Earth-moving machinery))—Models)

POLKANOV, Fedor Mikhaylovich; ARKHAROVA, L.Ya., red.; LEBEDEV, O.S.,
tekhn. red.

[Behind a glass shore] Za steklianym beregom. Moskva, Izd-
vo "Detskii mir," 1963. 56 p. (MIRA 16:12)
(Aquariums)

ARKHAROVA, O. G.

22009 ARKHAROVA, O. G.. K Voprosu kontrolya zashchity ot rentgenovskikh luchey. Sbornik statey po obshchetekhn, voprosam (Trudy Ural'skogo lesotekhn, in-ta). Sverdlovsk, 1949, s. 28-29-Bibliogr: 7 Nazv.

SO: Lotopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

SMIRNOV, Vasiliy Filippovich; ZVONKOV, V.F., nauchnyy red.; ARKHAROVA,
V.G., red.; TIKHONOVA, I.M., tekhn.red.

[Our great concern; growth of the material well-being of the
working class during the fifth five-year plan; based on data
from Leningrad enterprises] Velikaja rabota; rost material'nogo
blagosostoianiaia rabochego klassa v gody piatiletii (na
materialakh leningradskikh predpriatiij). - Lenizdat, 1958. 129 p.

(MIRA 12:3)

(Russia--Economic conditions)

YEFIMOV, Gerontiy Valentinovich; ARKHAROVA, V.G., red.

[Countries and people] Strany i liudi. Leningrad,
Lenizdat, 1965. 302 p.
(MIRA 18:12)

KUZNETS, Yuriy L'vovich, kand. istor.nauk; NOSOV, F.V., doktor istor.
nauk, red.; ALEXAROVA, V.G., red.; ONOSHKO, N.G., tekhn.red.

[The truth about the "American way of life"] Pravda ob "ameri-
kanskem obraze zhizni." Pod obshchel red. F.V.Nosova. Leningrad,
Lenizdat, 1960. 42 p.

(MIRA 14:4)

(United States--Cost and standard of living)
(United States--Unemployed)

VOLK, Stepan Stepanovich; ARKHAROVA, V.G., red.; TIKHONOV, I.M., tekhn.
red.

[European contrasts; notes of a Soviet tourist] Evropeiskie kon-
trasty; zametki sovetskogo turista. Leningrad, Lenizdat, 1961. 168 p.
(MIRA 14:11)
(Europe, Western—Description and travel)

TALUNTIS, Eduard Romual'dovich; ARKHAROVA, V.G., red.; LEVONEVSKAYA,
L.G., tekhn. red.

[Courage is work's password] Trud otvagu liubit. Leningrad,
Lenizdat, 1961. 101 p. (MIRA 15:2)
(Socialist competition) (Suggestion systems)

PIROGOV, Petr Petrovich; ARKHAROVA, V.G., red.; TIKHONOVA, I.M.,
tekhn. red.

[A great exploit is continued; the glorious deeds of sappers
of the Leningrad Military District] Podvig prodolzaetsia; o
slavykh delakh saperov Leningradskogo voennogo okruga.
Leningrad, "enizdat, 1962. 70 p. (MIRA 15:9)
(Leningrad--Bomb reconnaissance)

SOKOLOV, Pavel Kirillovich; ARKHAROVA, V.G., red.; ONOSHKO, N.G.,
tekhn. red.

[Hello, fourth year] Zdravstvui, chetvertiye Leningrad, Len-
izdat, 1962. 22 p.
(MIRA 15:9)

1. Nachal'nik upravleniya Leningradskogo soveta narodnogo
khozyaystva (for Sokolov).
(Leningrad--Industries)

FROLOV, Matvey L'vovich, zhurnalista; ARKHAROVA, V.G., red.;
LEVONEVSKAYA, L.G., tekhn. red.

["The winged guard"; a book of feature stories on heroic
fliers] Krylataia gvardia; kniga-reportazh o letchikakh-
geroiakh. Leningrad, Lenizdat, 1963. 134 p.

(MIRA 16:12)
(World War, 1939-1945--Aerial operations)

МАКИТА ОВАГ-В. В.

PHASE I BOOK EXPLOITATION 507/5055

Visorunnaya konferentsiya po trentyu i iznosu v mashinakh. 34.
1958.

Hydrodynamic Theory of Lubrication. Hydrodynamic Theory of Lubrication.
Slip Bearings. Lubrication and Lubricating Materials. Moscow,
Izdatelstvo Akademiya Nauk SSSR. 322 Pgs. 3,800 copies
printed. (Series: Itch. Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.
Rep. Ad. for the Section "Hydrodynamic Theory of Lubrication
and Slip Bearings": Ye. M. Gut'yar. Professor, Doctor of Tech-
nical Sciences; Rep. Ad. D'yachkov, Professor, Doctor of Tech-
nical Sciences; Rep. Ad. K. D'yachkov, Professor, Doctor of Tech-
nical Sciences; Rep. Ad. G. V. Vinogradov, Professor, Doctor of
Lubricant Materials; Rep. Ad. G. V. Vinogradov, Professor, Doctor of
Chemical Sciences Ed. of Publishing House: N. Ya. Klebanov;
Tech. Ed.: O. N. Gus'kova.

PURPOSE: This collection of articles is intended for practicing
engineers and research scientists.

COVERAGE: The collection, published by the Institut mashino-
vedeniya Akademii Nauk SSSR (Institute of Science of Machine) Academy
of Sciences USSR (contains papers presented at the III
Visorunnaya konferentsiya po trentyu i iznosu v mashinakh
(Third All-Union Conference on Friction and Wear in Machine)
which was held April 9-15, 1958. Problems discussed were in
Hydrodynamic Theory (Cont.)

Korobchinskii, M. V. On Unsteady Motions of the Journal in
a Bearing. (Preprint i iznos v mashinakh T. 1b, Izdav. AM
SSSR, 1960) 16

II. LUBRICATION AND LUBRICANT MATERIALS

- | | |
|---|---|
| Vinogradov, G. V. Some New Methods of Producing and In-
vestigating Lubricant Materials 165 | Vinogradov, G. V., Ye. M. Optima, L. M. Senterukhina, and
A. A. Sushida. Experiment Using Disulfide of Molybdenum
as a Lubricant Material 172 |
| Ivanov, N. D., A. T. Pavlovskaia, and V. V. Arkharova.
Effect of the Composition and the Character of Gaseous
Media on the Wear-Resistant Properties of Petroleum Lubri-
cating Oils 177 | Vishnevskii, S. I. Contact Effect in Wear as a Factor in
the Oxidation of the Oil in Engines 187 |
| Vinogradov, G. V., V. V. Arkharova, N. T. Pavlovskaia,
and K. D. Sazanovko. Wear-Resistant and Antifriction
Properties of Salt Fusions 191 | Tolmachev, V. A., and Y. G. Lebedev. Abrasive Wear of
Soller Bearings in the Presence of a Lubricant Material 198 |
| Kil'ev, M. I., and G. I. Kichkin. Critical Temperature
of an Oil Film in Sliding Contact of Steel Surfaces, and
the Dispersive Capacity of the Oil 201 | Izorstarev, O. V. Methods for Determining the Critical
Temperatures of an Oil Film in the Case of Friction of
Steel Against Antifriction Alloys 212 |
| Morozova, O. Ye. Wear-Resistant Reaction of Sulfur-
Organic Compounds as Additives to Lubricant Oils 218 | <i>continued</i> |

ARKHAROVA, V. V. Cand Tech Sci -- (Diss) "Anti-wearing and
anti-friction properties of structural grouping fractions
of petroleum oils and individual hydrocarbons," Moscow, 1960, 16 pp
210 cop. (Institute of Petrochemical Synthesis, AS USSR) (KL, 42-60, 113)

VINOGRADOV, O.V.; ARKHAROVA, V.V.; BEZBOROD'KO, M.D.

Antiwear and antifriction properties of structural group fractions of petroleum lubricants. Izv.vys.ucheb.zav.; neft''i gaz 3 no.6:81-87 '60. (MIRA 13:7)

1. Voyennaya ordena Lenina akademiya bronetankovykh voysk im. I.V.Stalina.
(Lubrication and lubricants)

VINOGRADOV, G.V.; ARKHAROVA, V.V.

Basic characteristics of antiwear and antifrictional properties of hydrocarbons subjected to heavy friction. Khim.i tekhn. i masel 5 no.5:45-49 My '60. (MIRA 13:7)
(Hydrocarbons) (Friction)

S/152/60/000/006/001/001
B024/B076

AUTHORS: Vinogradov, G. V., Arkharova, V. V., Bezborod'ko, M. D.

TITLE: Antiwear and Antifriction Properties of Structural Group Fractions of Mineral Oils

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1960, No. 6, pp. 81-87

TEXT: The authors investigated how far the nature of the structural group fractions of mineral oils affects their antiwear and antifriction properties in the presence of oxidizing gas media. Already in previous short time tests in the open, under seizure load conditions, with a number of low viscosity mineral oils as well as with naphthene-paraffinic fractions an oxidizing of the hydrocarbon medium was ascertained (Ref. 4). Also the tests with various naphthene-paraffinic fractions in O_2 medium (Ref. 5) showed that the oxidation process between steel and hydrocarbons retards or interrupts the seizure of friction surfaces. The main purpose of the present work is to ascertain, according to the results of the above

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Antiwear and Antifriction Properties of
Structural Group Fractions of Mineral Oils

S/152/60/000/006/001/001
B024/B076

mentioned open air tests (Refs. 1-6), what influence the fractional composition of mineral oils of various origins as well as the nature of gas media exercise on the wear and friction of steel. Numerous hydrocarbon fractions were tested and the mineral oils were classified in structural groups according to the methods published before (Refs. 7-9). A series of fractions were made available by M. S. Borovaya. The tests were made on the four-ball machine; all samples tested are included in Tables 1 and 2, and the particularly typical cases are represented in Figs. 1 and 2, (Ref. 7). In respect of the naphthene-paraffinic fractions a quality analysis of two oil grades (Refs. 11,12) was made before and after the tests in order to ascertain the nature of the oxidation products. The comparison of various test results with the previous ones shows that the total sulphur content of mineral oils is in no way characteristic of their antiwear and antifriction properties. On the basis of tests with oxidizing gas media it was ascertained that the nature of structural group fractions of mineral oils was not of importance for their antiwear and antifriction properties. Oxygen has an influence similar to that of sulphur compounds active in relation to steel in the presence of which the wear increases at low loads and decreases at high loads. There are 2

Card 2/3

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S/152/60/000/008/004/004
B013/B054

15.6400

AUTHORS: Vinogradov, G. V., Arkharova, V. V.TITLE: Wear-resisting and Antifriction Properties of Tetralin-
and Decalin HomologsPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1960,
No. 8, pp. 65 - 72

TEXT: In the present paper, the authors describe experiments with Tetralin- and Decalin homologs, and study their solutions with dibenzyl disulfide content in a concentration of 0.1 mole/l (dibenzyl disulfide - melting point 70.5°C, sulfur content 25.9%). The polycyclic Tetralin- and Decalin homologs used for experimental purposes were synthesized according to Ref. 5. The hydrocarbons synthesized represented isomer mixtures which, for simplification, are called cyclohexyl Tetralin, dicyclohexyl Tetralin, cyclohexyl Decalin, and dicyclohexyl Decalin. Their characteristics are given in Table 1. Figs. 1 and 2 show the results obtained from experiments with dicyclohexyl Tetralin and cyclohexyl Decalin as well as their solutions with dibenzyl disulfide. The

Card 1/2

VINOGRADOV, G.V.; ARKHAROVA, V.V.

Wear and friction resistance of homologs of tetralin and decalin.
Izv. vys. ucheb. zav.; neft' i gaz 3 no.8:65-72 '60. (MIRA 14:4)

1. Voyennaya ordena Lenina akademiya bronetankovykh voysk imeni
I.V.Stalina.

(Naphthalene)

88831

5.3300

S/152/61/000/001/001/007
B023/B064

AUTHORS: Vinogradov, G. V., Arkharova, V. V., Podol'skiy, Yu. Ya.

TITLE: Wear resistance and antifriction properties of alkylated aromatic hydrocarbons

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 1, 1961, 61-65

TEXT: In continuation of their previous papers and published data, respectively (Refs. 1-3 and 10-13), the authors studied the antiwear- and antifriction properties of bicyclic aromatic hydrocarbons. A mixture of isomers of triisoamyl naphthalene was chosen as hydrocarbon. The investigations were carried out on a friction test machine with four balls which was described in the paper of Ref. 15. The balls consisted of WX6 (ShKh6) steel with a diameter of 12.7 mm. The gliding velocity was 23 cm/sec, the temperature 100°C. The experiments were conducted in air and in Ar- and O₂ atmosphere. Dibenzyl disulfide was used as antiwear admixture in a concentration of 0.1 mole/l. The curves of wear as a function of load showed two stages for triisoamyl naphthalene in all gas media applied. A table

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Wear resistance and antifriction...

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B023/B064

shows the values of the lower critical loads P_k' (on the lower stage) and the higher (P_k'' on the upper stage) at which a more or less jumpwise increase of wear occurs due to an intensive gripping. In the authors' opinion the increase of the oxidizing activity of the gas medium leads to the increase of P' , to the increase of wear at $P < P'$, and to a considerable reduction of wear at $P > P_k'$. The experiments with the dibenzyl sulfide solution showed, in agreement with previous publications, that the disulfide sulfur introduced into the hydrocarbon has the same effect as O_2 . At lower loads, the presence of sulfur, like the presence of O_2 , leads to an increase, but at high loads to a reduction of wear. Reduction is especially great when O_2 is intensively introduced into the zones of friction. The increase in the oxidizing activity of the gas medium leads to a reduction of the gripping process. The introduction of the sulfurous admixture which is active toward steel, eliminates vehement gripping. At experiments made in O_2 atmosphere, the values of the friction coefficients at the end of the 1-minute experiments did not depend on the loads perpendicular to the axis. The curves $p(P)$ for solutions of dibenzyl sulfide show, like the curves wear - load and the friction diagrams, that sulfur,

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Wear resistance and antifriction...

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B023/B064

at friction under high specific loads acts analogously to O_2 , and that each of these agents increases the effect of the other. In conclusion, the authors summarize as follows: The antiwear- and antifriction properties of the alkylated bicyclic hydrocarbons at difficult conditions of friction do not differ qualitatively from what is known about naphthene-paraffine and low-sulfuric aromatic fractions of mineral oils. These properties depend on the intensity of the course of conjugate oxidation reactions of hydrocarbon lubricating media and steel. Molecular oxygen is an active anti-aggressive admixture. Its effect increases the effect of disulfide sulfur and vice versa. K. I. Klimov and G. I. Kichkin are mentioned. There are 4 figures, 1 table, and 15 Soviet-bloc references.

ASSOCIATION: Voyennaya akademiya bronetankovykh voysk im. I. V. Stalina
(Military Academy of Armored Troops imeni I. V. Stalin)

SUBMITTED: July 25, 1960

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88831

Wear resistance and antifriction...

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B023/B064

Legend to the Table: 1: denotation of the product; 2: Argon; 3: Air;
 4: Oxygen; 5: Triisoamyl naphthalene; 6: Dto. + dibenzyl disulfide.



1 Название продукта	2 Аргон				3 Воздух				4 Кислород			
	P'_k	p'	P''_k	p''	P'_k	p'	P''_k	p''	P'_k	p'	P''_k	p''
5 Тринзоамил-нафталин	20	120	90	30	45	127	105	32	60	120	135	70
6 То же+дibenзилдисульфид	—	—	—	—	30	130	—	—	60	100	—	—

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89126

19600 (1153)

S/065/61/000/003/001/004
E194/E284

AUTHORS: Vinogradov, G. V., Arkharova, V. V. and Petrov, A.A.

TITLE: The Anti-Wear and Anti-Frictional Properties of
HydrocarbonsPERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 3,
pp. 48-54

TEXT: Four-ball machine friction and wear tests were made on the following hydrocarbons and mixtures of them: Tetracosane; 7-hexyloctadecane; 1,5-dicyclohexyl-3-heptylpentane; 1,5-diphenyl-3-heptylpentane; 1,1-diphenyldodecane-1; 1,1-diphenyldodecane; cyclohexyltetralin and dicyclohexyldecalin. The balls were 0.5" diameter of ball-bearing chrome-steel hardened to 62 Rc. Atmospheres of argon, air and oxygen were used in the tests. All the tests were carried out for one minute at a sliding speed of 23 cm/sec, in the tests with argon and oxygen the gas was blown through at a rate of 12 litres per hour at a temperature of $100 \pm 1^\circ\text{C}$. After each test the load was increased and the balls were rotated to present a fresh wear-surface but the lubricant was not changed. Tests were made below, at and well-above the

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S/065/61/000/003/001/004
E194/E284

The Anti-Wear and Anti-Frictional Properties of Hydrocarbons seizure load. The results are presented in the form of log/log graphs of wear against load, wear being assessed by diameter of wear-scar. The tests in argon atmosphere display considerable variation in seizure load and shape of wear curve. In general, however, in argon the seizure loads are low and the wear is small at loads below the seizure loads. The seizure is easily broken down. The test results of hydrocarbons in argon are similar to those observed for low-sulphur lubricating oils. The behaviour observed is attributed to the presence of traces of oxygen or oxygen compounds in the hydrocarbon that are capable of replacing the oxide films on freshly worn metal surfaces provided that these are not produced too rapidly. When argon is replaced by air the seizure load rises because both metal and hydrocarbons are more easily oxidized. In an oxygen atmosphere the seizure loads are still higher and the wear curves rise smoothly. These smoothly rising wear curves are most typical of the easily oxidized and relatively low viscous hydrocarbons such as cyclohexyltetralin. The more viscous and less readily oxidized hydrocarbons often have

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E194/E284

The Anti-Wear and Anti-Frictional Properties of Hydrocarbons
a step in the wear curve, presumably because as the viscosity
increases access of oxygen is hindered. However, in an oxygen
atmosphere the graphs of wear-scar diameter against load lie
within a very narrow band for a wide range of hydrocarbons
including not only those tested but many others besides. At loads
below the seizure load the wear is often heavier in oxygen than in
air or in argon and this is attributed to oxidation of the steel
during friction. Combined oxidation of steel and hydrocarbon
under heavy friction conditions occurs during the exposure of
fresh metal surfaces in the presence of frictional heat. The
conditions are quite different from those in normal oxidation
tests. The results show that molecular oxygen and organic sulphur
compounds which react with steel act as anti-seizure additives
and as substances which increase the chemical wear of the steel,
thus behaving like extreme pressure additives. The separate and
combined influences of dibenzyl disulphide and oxygen as extreme
pressure additives are described. The main conclusions of the
article are that the anti-friction and anti-wear properties of a .

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89126

S/065/61/000/003/001/004
E194/E284

The Anti-Wear and Anti-Frictional Properties of Hydrocarbons
large number of hydrocarbons are very similar in an oxygen atmosphere. Friction and wear tests with steel balls and hydrocarbon lubricants take place in the presence of oxidizing substances which can have an important anti-seizure effect comparable with that of sulphur-containing extreme-pressure additives. It is claimed that individual high molecular weight hydrocarbons can be used as model substances for the study of anti-wear and anti-friction properties of low sulphur lubricating oils. There are 7 figures, 1 table and 6 Soviet references.

Card 4/4

ARKHEM, Ar'anasiy Andreyevich; KUZNETSOVA, Aleksandra Ivanovna;
SIMUKOVÀ, N.A., red.

[Thin-layer chromatography] Tonkosloinaia khromatogra-
fija. Noskva, Nauka, 1964. 174 p. (MIRA 17:9)

MOGILEVICH, M.M.; ARKHIPOV, M.I.

Film-forming capacity of mixed polyesters of the acrylic series in the presence of cobalt salts. Lakokras. mat. i ikh prim. no. 6:12-16 '60. (MIRA 13:12)
(Acrylic acid) (Films (Chemistry))

KUZNETSOV, Yury Vladimirovich; ARKHIPOV, N.A., otv. red.; ZHUKOV, V.V.,
red. izd-va; IL'INSKAYA, G.M., tekhn.red.

[Preliminary wetting of coal seams] Predvaritel'noe uvlazhnenie
ugol'nykh plastov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
gornomu delu, 1960. 56 p.
(Mine dusts) (MIRA 14:5)

LAZUNOVA, A.S., inzhener-tehnolog; REZNIKOVA, F.N., inzhener-tehnolog;
ARKHAROVA, Z.A., inzhener tekhnolog; BAULIN, V.A., redaktor;
ROSLOV, G.I., tekhnicheskiy redaktor

[A collection of technological instructions, recipes and technical
specifications for fish products] Sbornik tekhnologicheskikh
instruktsii, retseptur i tekhnicheskikh uslovii na rybnuiu kulinariu.
Moskva, Gos. izd-vo torgovoi lit-ry, 1956. 223 p. (MLRA 9:9)

1. Russia (1923- U.S.S.R.) Glavrybtorg. 2. Glavrybtorg (for
Lazunova, Reznikova, Arkharova)
(Fishery products--Preservation)

31976
S/081/61/000/023/049/061
B107/B110

11.9000 also 1583

AUTHORS: Bezborod'ko, M. D., Pavlovskaya, N. T., Arkharova, V. V.

TITLE: Effect of composition and nature of gaseous media on the antifrictional properties of mineral lubricating oils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 453, abstract 23M115 (Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh. M., AN SSSR, v. 3, 1960, 177-186)

TEXT: A four-ball machine with a special friction joint permitting the introduction of gases was used for the investigation. The effect of gaseous media (air, argon, nitrogen, oxygen) on the antifrictional properties of the following lubricants was studied; naphthalene - paraffin and aromatic fractions of oils and oil extracts boiling in a narrow range which were produced in the Groznenskiy zavod (Grozny works), Bakinskiy zavod (Baku works), and Novo-Kuybyshevskiy zavod (Novo-Kuybyshev works). Various metals, IIIKh6 (ShKh6) and 3H229 (EI229) steels and beryllium bronze were tested at high specific pressures and temperatures. It has been found that the nature of the gaseous media has an effect upon

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Effect of composition and nature of...

31976
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B107/B110

the wear of the steels and on the critical load; whereas the mean specific pressures are practically independent of the gaseous medium. On testing oils, the critical load rose when argon was replaced by air and oxygen, but the differences of the mean specific pressures were but slight. The nature of the gaseous medium does affect not only the intensification or retardation of the oxidation processes of the lubricating oils, but has also a strong effect on the structure of the metal in the friction zones. The greatest changes in structure occur in argon medium. [Abstracter's note: Complete translation.]

Cart. 2/2

ARKHENISHVILLI A.

The characteristics of Sadakhlo, Adgarmeti, and Motsameta carbonates. M. Kekelidze, A. Arkhenishvili, V. Perova, and S. Manzhanadze.

Gor'kogo Dels, Akad. Nauk Gruzin. S.S.R. 2, 175-180 (1940) (in Georgian).—The carbonates of these deposits contain CaO 53%, sometimes even the theoretical amount, and MgO 1-3%. Carbonates from Darkvet contain CaO 45-7% and MnO 6.5-7.5%.

M. Charmandarishvili

(3)

ARKHID' YAKONSKIY, Yu.V.

Unique forms of shore leaching. Priroda 44 no.8:112-113 Ag 55.
(MIRA 8:10)

1. Molotovskiy gosudarstvennyy universitet
(Leaching) (Shore lines)

ARKHIMOVICH, A.

SSSR (Grains of the USSR) Miunkhen, 1954. 106 p.

1. Grain - Russia

Земледелие, А.

Zemnovyye Kul'tury (Grain Farming in the USSR) Nyunkhen, 1954.

106 P. (Issledovaniya i Materialy. Seriya 2, Nc. 20)

At head of Title: Institut Po Izucheniyu Istorii I Kul'tury SSSR.
Summaries in English, French, German.

S.O. N/5
724
.A7

ARKHIMOVICH, ALEKSANDR

N/5
729.11
.A7

Kul'tura khopchatnika v SSSR (Cultivation of the cotton plant in the USSR) Myunkhen, Istdkult, 1954.

110 p.

"Literatura i Istochniki": p. (88)-89.

Summaries of text in English, German, and French.

At head of title: Institut Po Izucheniyu Istorii i Kul'tury SSSR.

ATTRIBUTION, ALPHABETIC

5/5
632.851
.47

Selektsiya i semenovodstvo sakharney sverkly v SSSR (Selection and seed growing of sugar beets in the USSR) Nyunkhen, Istrkult, 1954.
169 p. (Issledovaniya i materialy. Seriya I-ya, vyp. 15)
At head of title: Institut Po izucheniyu Istorii i Kul'tury SSSR.
"Literatura" p. 137-163.
Summaries of text in English, French, and German.

ARYHEVICH, A

3

Rasteniye vodstva SSSR. Nyunkhen, 1960.
232 p. tables. (Institut po Izucheniyu SSSR,
Prib., Series 1, No.57)
Summaries of title in English, German and French.
Titlography: p.211-229.

ARKHIMOVICH, B. V. kandidat med. nauk, zasluzhennyy vrach USSR

Some problems of disability evaluation in surgical diseases.
Nov.khir.arkh. no.3:70-78 My-Je '59. (MIRA 12:10)

1. Zavedeniyashchiiy khirurgicheskim otdeleniyem Kiyevskoy klinicheskoy bol'nitsy dlya obsluzhivaniya vodnikov.
(DISABILITY EVALUATION)

ARKHIMOVICH, B.Z., zasluzhennyj vrach USSR (Kiyev)

Fiftieth anniversary of the Kiev Surgical Society. Nov.khir.arkh.
no.5:122-127 S-0 '59. (MIRA 13:3)

1. Pochetnyj chlen Ukrainskogo nauchnogo obshchestva khirurgov.
(KIEV--SURGICAL SOCIETIES)

ARKHIMOVICH, V.A., kand.med.nauk, zasluzhennyj vrach USSR (Kiyev, ul. Artema,
d. 55, kv. 3)

Principles of the treatment of suppurative processes of the hand
and fingers. Nov.khir.arkh. no.6:9-15 N-D '58. (MIRA 12:3)

1. Khirurgicheskoye otdeleниe Kiyevskoy klinicheskoy bol'nitsy
dlya obsluhivaniya vodnikov.

(FELON (DISEASE)
(HAND-SURGERY))

ARKHINA, E.V. and ZILBER, L.A.

"Methods for Isolating Epidemic Influenza Virus," Zhu. MEIB
V. 18, pp. 554-568, 1937.

Central Virus Lab.

Cand Med Sci

ARKHINA, YE. V.

Dissertation: "Application of the Reaction of Hemagglutination for Studying Grippe."
6/4/50

Academy Med Sci USSR

**SO Vecheryaya Moskva
Sum 71**

USSR/Microbiology - Microorganisms Pathogenic to Humans and
Animals.

F-4

Abs Jour : Ref Zhur - Biol., № 10, 1958, 43339
Author : Arkhina, E.V., Popova, N.V., Kartashcva, V.N.
Inst :
Title : Experimental Infection of Rabbits with an Avisual Strepto-
 coccal Form ("AS" Falkovich).
Orig Pub : Nauchn. tr. Mosk. n.-i. in-t vaktsin i syvorotok, 1955,
 6, 83-86.

Abstract : No abstract.

Card 1/1

30

ARKHINA, E.V.

USSR/Microbiology - Medical and Veterinary Microbiology

F-4

Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68576

Author : Falkovich, L.I., Voronkova, O.I., Arkhina, E.V.
Title : Experimental Infection of Animals by Isolated Avisual
Form of Streptococcus.

Orig Pub : Nauch. tr. Mosk. n.-i. in-t Vaktsin i Sivorotok, 1956,
6, 79-82

Abstract : The injection of a filterable avisual form of scarlatinal streptococcus (SS) (Russian AS), isolated from scarlet fever patients, into the veins of rabbits caused a rise of temperature, skin-reddening of the ears and sides with subsequent peeling, swelling of mucous membrane of the nose and lips, leucocytosis with pseudoeosinophylia, changes in urine indicating kidney involvement. In pathologico-anatomic examination there was noted a reaction of the tissues of all organs, which expresses itself mainly in a degeneration of their parenchyma. The material

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USSR/Microbiology - Medical and Veterinary Microbiology

F-4

Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68576

from the ill rabbits, injected into mice, caused in the latter typical manifestations for avisual forms of streptococci which were neutralized by specific sera and sera from scarlet fever convalescents.

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ARKHINOS, B.Ye.; KOGAN, V.D.; FEDOROVICH, G.P.

Formation of the Spivakovka uplift at the northwest subsidence of
the Donets Basin. Gaz.prom. 5 no.10;1-5 O '60. (MIRA 13:10)
(Donets Basin--Geology, Structural)

PHASE I BOOK EXPLOITATION

sov/4977

Arkhinov, Viktor Nikolayevich

Smola iz nefti i khlora; polivinilkhloridnaya smola (Resins from Petroleum and Chlorine; Polyvinyl Chloride Resin) [Gor'kiy] Gor'kovskoye knizhnoye izd-vo, 1959. 34 p. 3,000 copies printed. (Series: Khimiya v narodnom khozyaystve)

Ed.: V.V. Knyazev; Tech. Ed.: R.G. Brulikovskaya.

PURPOSE: This pamphlet is intended for the general reader desiring information on polyvinyl chloride resins and their application.

COVERAGE: The pamphlet contains brief information on the chemistry and technology of polyvinyl chloride resins, their use, and prospects for development of their manufacture in the period 1959-1965. It describes the use of these resins in the electrical engineering, machine-building, construction, varnish and paint, and synthetic leather and fiber industries. It is stated that in the near future polyvinyl chloride resins will be generally manufactured in the Soviet Union not only from ethylene and chlorine but also from acetylene

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Resins from Petroleum and Chlorine (Cont.)

SOV/4977

and hydrogen chloride. No personalities are mentioned. There are 34 references, all Soviet.

TABLE OF CONTENTS:

Chemistry of Polyvinyl Chloride Resins	3
Fields of Application of Polyvinyl Chloride Resins	15
Manufacture of Polyvinyl Chloride Resins According to the Seven-Year Plan	26
Bibliography	34

AVAILABLE: Library of Congress (TP986.P56A7)

Card 2/2

JA/dek/gmp
4-18-61

ARKHIPCHENKO, A.S.

Geological structure and oil potential of the Bogachevka field
on the Kamchatka Peninsula. Avtoref. nauch. trud. VNIGRI no.17:
279-283 '56. (MIRA 11:6)
(Bogachevka Valley--Petroleum geology)

ARKHIPCHENKO, A.S.

Outlook for petroleum in eastern Kamchatka. Trudy VNIGRI no.163:199-
217 '60. (MIRA 14:6)
(Kamchatka—Petroleum geology)

ARKHIPCHENKO, A.S.; NAZAROV, V.I.; SHAMES, D.Z.

Geologic and economic oil and gas prospecting indices for the
West Siberian Plain. Geol. nefti i gaza 7 no.7:13-17 J1 '63.
(MIRA 16:7)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy
geologorazvedochnyy institut.

(West Siberian Plain—Petroleum geology)
(West Siberian Plain—Gas, Natural—Geology)

Country	: USSR
Category	: Pharmacology and Toxicology. Narcotics V
Obs. Jour.	: Ref Zhur-Biol, No 13, 1958, No 61305
Author	: Arkhipenko, A. G.
Institut.	: Kuban Medical Institute
Title	: Effect of Ether Anesthesia on Reflex Fluctuations in Blood Pressure Produced by Stimulation of the Carotid Sinus
Orig. Pub.	: Nauchn. tr. Kubansk. med. in-ta, 1957, 15 (28), 49-57
Abstract	: Experiments were performed on 42 dogs. When the blood pressure in the sinus prior to anesthesia was high, there occurred a fall in blood pressure of 50-70%, a decrease in pulse rate and respiratory rate of 8-10%, or cessation of respiration for 10-15 seconds. Under ether anesthesia of moderate depth, there was a reflex drop of blood pressure of 47%, but under deep anesthesia the drop in pressure was only 9%. Reactions of the respiratory center were not
Card:	1/2

V - 6

ARKHIPENKO, D. K.

USSR/Physics - Rama Spectra

11 Sep 52

"Temperature Dependence of the Lines of Combination Scattering of Light [Raman Spectra]", Ya. S. Bobovich, D. K. Arkhipenko

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 247-250

Discusses the temp variations in the intensities of combination lines [Raman spectra] of CCl_4 , CHCl_3 , $\text{C}_6\text{H}_5\text{NO}_2$, n -nitrotoluol, m -nitrotoluol, and naphthalene. Also acknowledges assistance of A. I. Res'kina, who measured absorption on the Beckman spectrophotometer. Concludes that the results of

235T97

Venkateswarlu (Curr Sci 16, 1, 1947) are incorrect. Thanks V. K. Prokor'yev and M. V. Vol'kenshteyn for their critical analysis of the exptl data. Submitted by Acad A. N. Terentin 12 Jul 52.

235T97

ARKHIPENKO, D.K.; PLEKHANOVA, Ye.A.

Infrared spectra of kaolinite and its dehydration product. Izv.
Sib. otd. AN SSSR no. 3:109-112 '61. (MIRA 14:5)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.
(Kaolinite—Spectra)

ARKHIPENKO, D.K.

Infrared spectra of muscovites. Gool. i geofiz. no.3:115-121 '62.
(MIRA 15:7)
1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.
(Muscovite---Spectra)

BOKIY, G.B.; ARKHIPENKO, D.K.

Oxonium ion in vermiculite. Zhur.strukt.khim. 3 no.6:697-702
'62. (MIRA 15:12)

1. Institut neorganicheskoy khimii Sibirskego otdeleniya
AN SSSR i Institut geologii i geofiziki Sibirskego otdeleniya
AN SSSR, Novosibirsk.
(Vermiculite—Spectra) (Oxonium compounds)

ARKHIPENKO, D.K.

Use of infrared spectroscopy in the study of the problems of
isomorphism in biotites. Zhur.strukt.khim. 4 no.2:201-209
Mr-Ap '63. (MIRA 16:5)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

(Biotite) (Isomorphism) (Spectrum, Infrared)

ARKHIPENKO, D.K.; GRIGOR'YEVA, T.N.; KOSALS, Ya.A.

Identification of micas. Rent. min. syr. no. 2:46-51 '62.
(MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy
institut Ministerstva geologii i okhrany nedr SSSR.

ARKHIPENKO D.K.; GRIGOR'YEVA, T.N.; KOVALEVA, L.T.

Comparison of the content of oxonium in various vermiculites by
X-ray diffraction analysis and infrared spectroscopy. Rent. min.
syr. no.3:79-84 '63. (MIRA 17:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.

L 33985-66

ACC NR: AR6017248

SOURCE CODE: UR/0058/65/000/012/D045/D045

AUTHOR: Kovaleva, L. T.; Nekrasov, I. Ya.; Arkhipenko, D. K.; Brovkin, A. A.; Grigor'yev, A. P.

TITLE: Study of minerals of the szaibelyite-sussexite series by infrared spectroscopy and x-ray diffraction methods 34
B

SOURCE: Ref. zh. Fizika, Abs. 12D380

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 604-610

TOPIC TAGS: mineral, ir spectroscopy, x ray diffraction study, absorption band

ABSTRACT: The authors studied minerals of the series $M_2B_2O_5(H)_2$ - $M_2B_2O_5(OH)_2$. The parameters of the unit cell were calculated for the entire series. A dependence of the parameters, position, and intensity of the absorption bands on the chemical composition is established. The possibilities are discussed of crediting the ir bands to vibrations of the B-O-R²⁺ and OH-Mg, OH-Mn groups. The formula $(Mg, Mn)_2B_2O_5(OH)_2$ is proposed in place of the formula $(Mg, Mn)HBO_3$, since it has been established spectroscopically that the B_2O_5 groups and free OH are present. These singularities are characteristic also of the natural minerals. [Translation of abstract]

SUB CODE: 20, 08/

Card 1/1 So

A. V. RIKH. Report No. 10000000000000000000000000000000

TITLE: Concerning the structure of pyrocerams catalyzed with titanium dioxide

SOURCE: Optika i spektroskopiya, v. 17, no. 5, 1964, 755-758

TOPIC TAGS: pyroceram, rutile, titanium dioxide, Raman spectrum, glass

ABSTRACT: The purpose of the investigation was to clarify the origin of the intense 11 cm^{-1} line previously observed. One of the authors has shown (Avdeev R. I., 1963) that the Raman light from pyroceram is different by its intensity and spectral character from that of glass. The Raman effect was observed in the following apparatus: supplies of titanium dioxide, the source of light, the apparatus for the Raman spectra, the IR-1 instrument for the infrared

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L 16434-5c

ACCESSION NR: AP4048749

red spectra, and the URS-50-I-M instrument for x-ray structure analysis (XRD) are also cited. The spectra of the sample will be given later. The author states that the Soviet Union has been publishing spectra of various materials. In addition, the author states that the latter has access from similar to that of the U.S. Patent Office to all of the Soviet literature. This shows that the Soviet Union is very active at the time, while the U.S. does not have a database. The author believes that the Soviet Union has a much more complete collection of spectra than the U.S. The author states that the Soviet Union has a large number of spectra, and that they are available in books and periodicals.

ASSOCIATION: None

SUBMITTED: 11Nov63

ENCL: 00

SUB CODE: OP, MT

NR REF SOV: 010

OT HER: 000

Card 2/2

ARKHIPENKO, D.K.; VAKHRUSHEV, V.A.

Chemicostructural studies of phlogopite from skarn-magnetite
deposits. Zap.Vses.min.ob-va 93 no.6:704-707 '64.

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk. (MIRA 18:4)

KOTSUPALO, N.P.; ARKHIFENKO, D.K.; GOLUBOVA, S.A.

Nature of water in lithium dialuminato. Izv. SO AN SSSR no.3
Ser. khim. nauk no.1:55-59 '65.
(MIRA 18:8)

1. Institut fiziko-khimicheskikh osnov pererabotki mineral'nogo
syr'ya Sibirskogo otdeleniya AN SSSR, Novosibirsk.

ARKHIPENKO, D.K.; BOBR-SERGEYEV, A.A.; GRIGOR'YEVA, T.N.; KOVALEVA, L.T.

Possibility of filling octahedral structural positions in micas
with univalent sodium cations. Dokl. AN SSSR 160 no.2:429-431
Ja '65.
(MIRA 18:2)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
Submitted September 14, 1964.

KLYAROVSKIY, V.M.; GUSEV, G.M.; ARKHIPENKO, D.K.; GOLOSOV, S.I.;
ZYRYANOVA, Ye.M.

Practice in modeling the weathering process of micas. [Trudy]
Inst. geol. i geofiz. Sib. otd. AN SSSR no.32:63-74 '65.
(MIRA 18:9)

ARKHIPENKO, D.K.; KOVALEVA, L.T.; GRIGOR'YEVA, T.N.

Possible usage of the method of infrared spectroscopy for studying
the isomorphic substitutions in muscovites. [Trudy] Inst. geol. i
geofiz. Sib. otd. AN SSSR no.32:102-106 '65. (MIRA 18:9)